

USB PWM Motor 8810-D

Manual



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Version :1.0

Index

Introduction.....	3
Features.....	3
Minimum System Inquire.....	3
SPEC.....	4
Package	4
Interface	5
Installation	6
Hardware	6
Driver & Software	6
Installation Procedure	6
Software Interface	8
Clockwise.....	8
Counter Clockwise	8
Control.....	8
Schedule.....	9
SDK - USB CDC emulation mode	10
USB CDC emulation mode	10

Introduction

No need any USB protocol knowledge to control PWM DC Motor through PC easily

If you want to use PC to control PWM DC Motor , with USB PWM Motor 8810-D , you can do it simply plug and play. With no external case , just plug the USB port and use our software to control the motor turning direction and the speed . There is Time Scheduler function , you can pre-set the time to auto control the motor .

Fit for Home / Office / Factory Automation application and school training purpose

Features

- Control through USB by PC software
- No need extra power source , use USB as power source and communication .
- Control one 5V PWM DC Motor – direction and speed
- Scheduler - timer control
- DK (USB CDC mode) provided – command under hyper terminal/ putty directly .
as 2nd developing

Note : This product supports 5V /12V Step Motor and PWM DC Motor .
For Step Motor but need to adjust 2 sets black jump .
Please contact your reseller to buy the step motor if need .
This board controls one kind of motor only at a time.

Minimum System Inquire

- PC / Notebook with Windows OS like WIN 7 , VISTA or XP .
- USB 2.0 / 1.1.
- **Microsoft .NET Framework Version 3.5 or above**

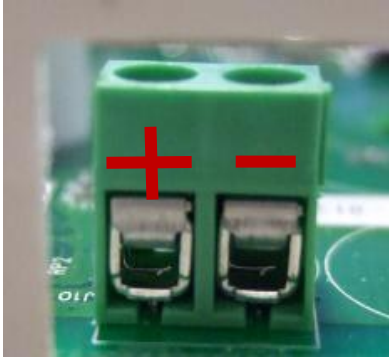
SPEC.

ITEM	SPECIFICATION
Rated Voltage	DC 5V
Motor Rated Load	0.25A/Phase
No. of Phases	Four (4)
Step Angle	7.5°
Excitation Method	2-2 Unipolar
Insulation Classification	Class A
Operating Temperature	0~+50℃
Operating Humidity	5~90%RH
Storage Temperature	-20℃~+70℃
Storage Humidity	5~95%RH

Package

8810-D x 1	
USB Cable (Male –Male)	For connect with PC
CD	With Driver , Manual and Software

Interface

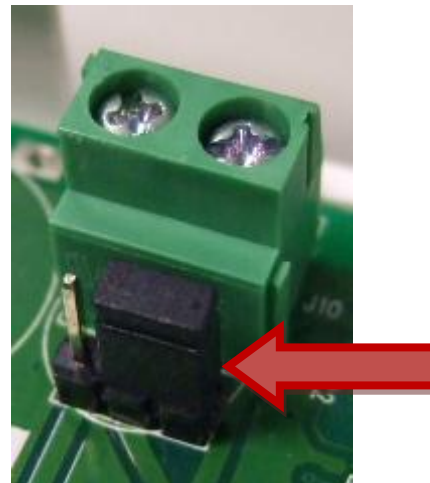
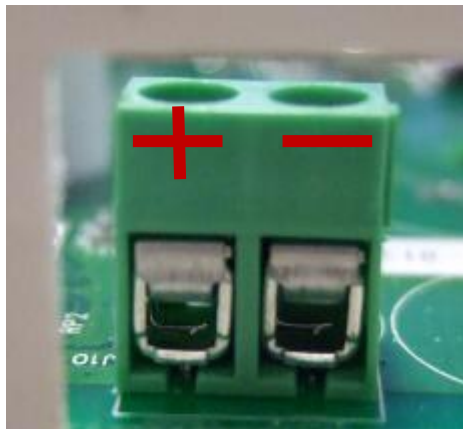
USB port	Connect with PC . 
5V PWM DC Motor & Fan (Demo)	Had on board
Other Motor Application	
Motor Socket	Connect to Step Motor 
12V Power In (Left+ / Right -)	For other 12V Step Motor . Need to adjust the JUMP position Please refer the Hardware Installation . 

Installation

Hardware

Connect the 8810-D board to PC by USB cable. Windows will show that there is Un-know hardware detected . Then please install the driver and software from CD.

Note : If use the option 12V Step Motor, user need to have the 12V power source first . Please plug the power source to the green socket for 12V power in (Left plus + & Right negative -) , and plug the 12V step motor to white socket and adjust the jumper as following :



Driver & Software

Installation Procedure

1. Please make sure that your PC had install .NET . or go to the link below here to download before install USB PWM Motor 8810-D . :
<http://www.microsoft.com/en-us/download/details.aspx?id=21>
2. After install .NET, please put the CD in your CD ROM and it will execute AUTORUN. file or you can open by Windows . Please use web browser " IE

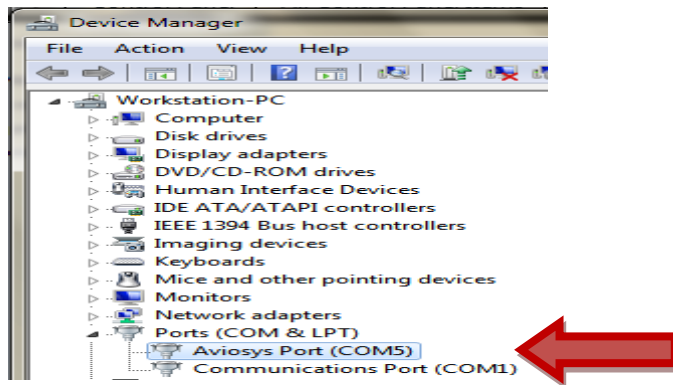
“ to open the CD.

3. Then go to Manual → USB Series → USB PWM Motor 8810-D to Download the driver “ USB Net Power Driver” and the software “USB PWM Motor 8810.exe “ into your hard disk .

- Software : USB PWM Motor 8810.exe
- 8810 Driver: USB Net Power Driver .

4. Connect the 8810 power and the USB port of 8810 power to PC . PC will pop up “ Detect New Hardware” , then select the 8810 driver and install .
5. After install the driver, you can get “Aviosys Port (COM X) in Ports (COM& LPT) device manager as following .

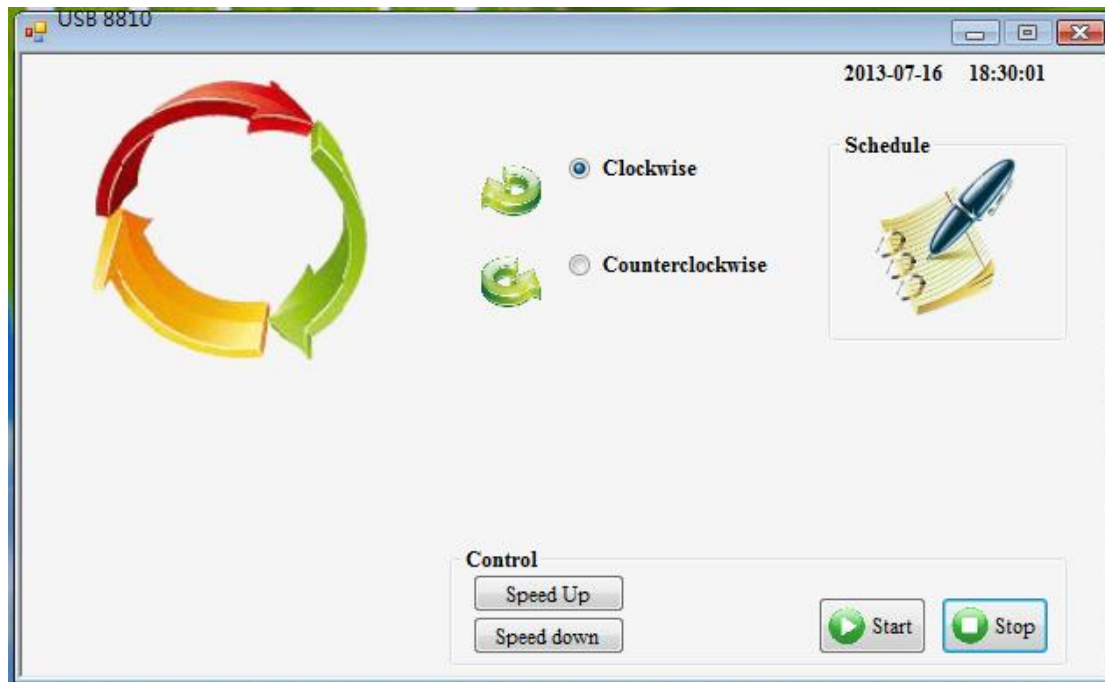
Control Panel → System → Device manager → Ports(COM& LPT) → Aviosys Port (COM X)



- 4.) After confirm the 8810-D had shown in Device Manager , please execute the software “USB PWM Motor 8810exe “ and you will see as following :



Software Interface



Clockwise

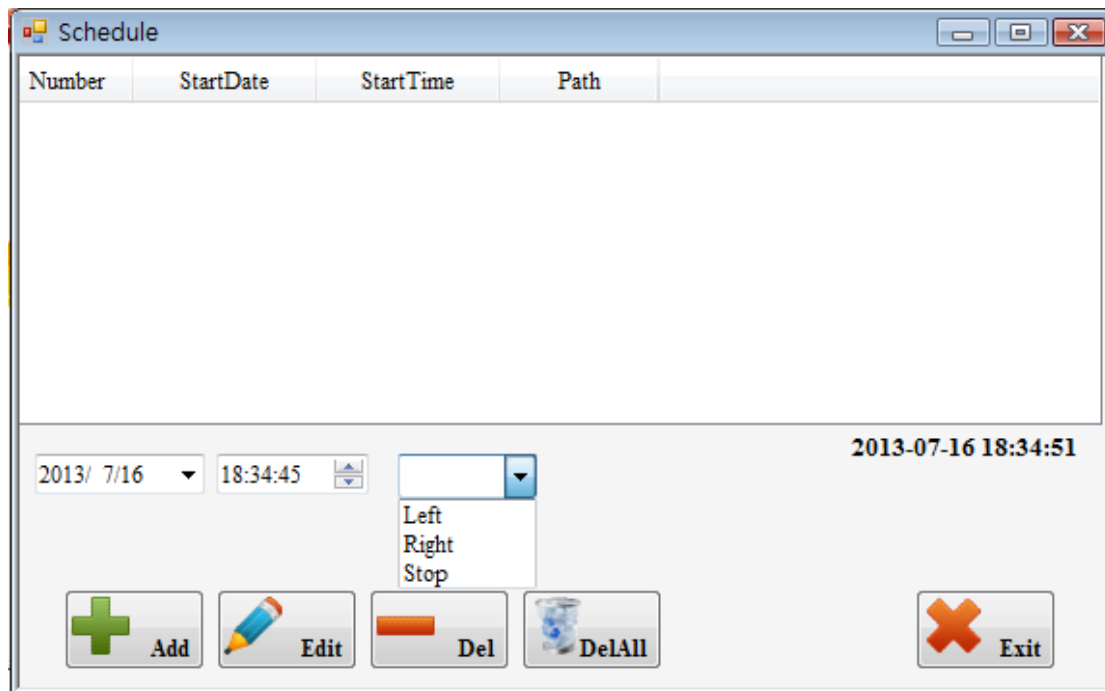
Counter Clockwise

Control

Here you can setup the speed up and down :

- Speed Up : Increase the speed
- Speedy Down: Lower the speed
- Start : Start turning
- Stop : Stop turning

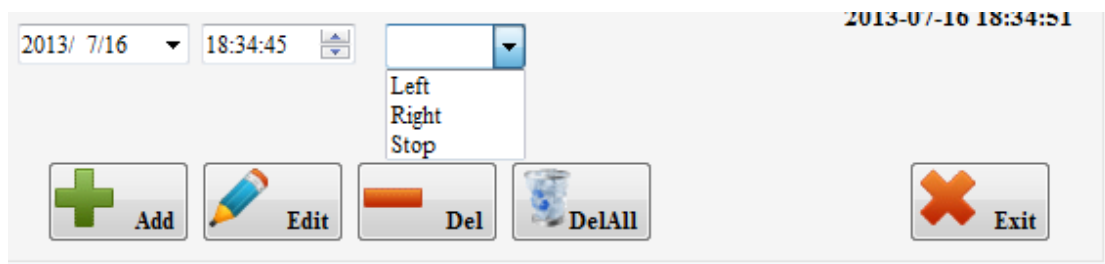
Schedule



Can setup the schedule to control motor. It is a helpful tool for auto control

Notice : Please turn off the Sleep function of PC and the 8810-D software need to be keep executing as use scheduler function.

Here user can select date , time and direction :



- Date : Select the date in calendar .
- Time : Select the time .
- Direction : Left(Counter clockwise) , Right (Clockwise) , Stop .

Add – Add new schedule

Edit – edit scheduler

- 1.) Press the item want to revise .
- 2.) Revised the date , time , direction , type and times.
- 3.) Please EDIT button s confirm .

Del – delete item

- 1.) Select the item want to delete
- 2.) Press DEL button .

Del All - delete all item in list

- 1.) Delete “ Del All” button to clear all list
- 2.) There is 2nd confirm before delete all action

SDK - USB CDC emulation mode

For user to arrange own development :

- Developing environment: :
 - VB.NET 2008
 - Microsoft NET. Framework Version 3.5
 - Microsoft office access 2007

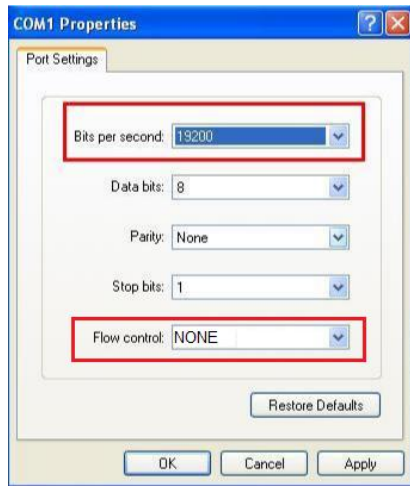
USB CDC emulation mode .

Please refer the setting as following :

1. First , make sure that the 8810-D is connect with your PC. Please go to
Control Panel → System → Device manager → Ports(COM& LPT) → Aviosys Port (COM X)
2. Then open Hyper terminal to connect with 8810-D.
Start → All programs→ Accessories → Communication → Hyper terminal

* There is no Hyper terminal program in WIN 7. Please use other serial software like Putty .
Select the COM port 8810-D use .

3. Setup “ Bits per second” as 19200 and “ Flow control” as NONE. Then press OK to log in .



After go into the command windows, please press “ enter “ key to get all the command .



[Command]

1. PWM DC Motor

- r --> Turn clockwise (right)
- l --> Turn counter clockwise (left)
- + --> speedy up
- --> speedy down

2.stop --> stop turning

3.? Or key "Enter" --> show command list

4 . Fast command —

~ - show 8810(PWM motor) °

! turn clockwise

@ turn counter clockwise

#,+ Speed up

\$,- Speedy down

(stop turning

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Thank you for supporting Aviosys .

If any question, please e-mail to our Service Department : service@aviosys.com